

FACT SHEET FOR STATE WASTE DISCHARGE PERMIT ST-5195
PRODUCTION PLATING, Inc.

TABLE OF CONTENTS

INTRODUCTION	2
BACKGROUND INFORMATION	3
DESCRIPTION OF THE FACILITY	3
Treatment Processes.....	3
PERMIT STATUS.....	4
SUMMARY OF COMPLIANCE WITH THE PREVIOUS PERMIT	4
WASTEWATER CHARACTERIZATION.....	4
SEPA COMPLIANCE	5
PROPOSED PERMIT LIMITATIONS.....	5
MONITORING REQUIREMENTS.....	6
OTHER PERMIT CONDITIONS	6
REPORTING AND RECORDKEEPING	6
OPERATIONS AND MAINTENANCE.....	6
PROHIBITED DISCHARGES.....	7
DILUTION PROHIBITED	7
SOLID WASTE PLAN	7
SPILL PLAN.....	7
SLUG DISCHARGE CONTROL PLAN	7
GENERAL CONDITIONS	7
PUBLIC NOTIFICATION OF NONCOMPLIANCE	8
RECOMMENDATION FOR PERMIT ISSUANCE	8

INTRODUCTION

This fact sheet is a companion document to the draft State Waste Discharge Permit No. ST-5195. The Department of Ecology (the Department) is proposing to issue this permit, which will allow discharge of wastewater to Olympus Terrace Sewer District. This fact sheet explains the nature of the proposed discharge, the Department's decisions on limiting the pollutants in the wastewater, and the regulatory and technical bases for those decisions.

Washington State law (RCW 90.48.080 and 90.48.160) requires that a permit be issued before discharge of wastewater to waters of the state is allowed. This statute includes commercial or industrial discharges to sewerage systems operated by municipalities or public entities which discharge into public waters of the state. Regulations adopted by the state include procedures for issuing permits and establish requirements which are to be included in the permit (Chapter 173-216 WAC).

The fact sheet and draft permit have been reviewed by the Permittee. Errors and omissions identified in these reviews have been corrected before going to public notice. After the public comment period has closed, the Department will summarize the substantive comments and the response to each comment. The summary and response to comments will become part of the file on the permit and parties submitting comments will receive a copy of the Department's response.

GENERAL INFORMATION	
Applicant	Production Plating, Inc.
Facility Name and Address	Production, Plating, Inc. 4412 Russell Road, Unit A Mukilteo, WA 9275
Type of Facility	Electroplating and metal finishing
Facility Discharge Location	Latitude: 47° 54' 47" N Longitude: 122° 19' 24" W
Treatment Plant Receiving Discharge	Olympus Terrace Sewer District
Contact at Facility	Pat Keating, Vice President Telephone No.: (425) 347-4635
Responsible Official	Pat Keating, Vice President Telephone No.: (425) 347-4635

BACKGROUND INFORMATION

DESCRIPTION OF THE FACILITY

Production Plating is employed in the electroplating and metal finishing processes in the following categories:

Zinc Electroplating

Copper Electroplating

Tin Electroplating

Nickel Electroplating

Phosphate Conversion Coating (now moved to other building)

Chromate Conversion Coating of Aluminum (includes black chromate process which employs silver oxide chromate)

Sulfuric Anodizing

Dyeing (associated with sulfuric anodizing, includes nickel chloride seal)

Zinc Stripping

Nickel Stripping

Rinsewaters from the above processes are hardpiped to the pretreatment systems. A new floor sealing was installed in 1997.

Cadmium plating was eliminated from this plant in 1993. The elimination of the cadmium line resulted in elimination of simple (as opposed to ferro-) cyanide from the rinse water. Some ferrocyanide is still present in the chromate conversion coating rinsewater.

Production Plating operates a paint shop in a separate building in the same industrial park. As the paint shop is in a separate building, and as there is no industrial wastewater discharge, the paint shop is not covered under this permit.

Production Plating operates a phosphate conversion coating line in a separate building on the other side (north side) of Russell Road. This plant employs evaporation to dispose of process rinsewater. As the building is non-contiguous with respect to its location, and as there is no discharge of process wastewater, the building is not subject to regulation under this permit. Under state regulations, the Department has concluded that no permit is required for this building, despite the fact that it employs processes which would otherwise be subject to categorical regulation.

TREATMENT PROCESSES

The plant employs a pretreatment system designed to remove metals (following reduction of hexavalent chromium) and adjust pH. The hexavalent chromium bearing wastewaters are subjected to reduction by means of application of sodium-bisulfite.

*FACT SHEET FOR STATE WASTE DISCHARGE PERMIT ST-5195
PRODUCTION PLATING, Inc.*

The reduced chromium wastewater and metal bearing wastewater are conducted to a continuous (as opposed to batch) clarifier where metals and ferrocyanides are settled. Due to the lack of simple cyanide bearing wastewaters following the elimination of cadmium processes in 1993, the use of alkaline chlorination has been discontinued.

The wastewater clarified in the step above is conducted, following sand filtration, along with non-metal-bearing wastewater to the final pH neutralization system. Examples of non-metal-bearing wastewater include alkaline cleaning rinsewaters.

Batch treatment of concentrated baths is performed in a 1,000-gallon batch treatment tank. Following batch treatment, the wastewater is discharged to the metal treatment system.

The sample point in the permit is the discharge of the final pH system. The exception is the sample point for cyanide, which is the chromium conversion coating rinsewater, prior to mixing with other wastewaters.

PERMIT STATUS

The previous permit for this facility was issued on March 31, 1995, with an expiration date of March 31, 1999.

SUMMARY OF COMPLIANCE WITH THE PREVIOUS PERMIT

Compliance inspections with sampling were conducted on September 2, 1998, and August 19, 1999. The Department has collected numerous surveillance grab samples during the course of the permit and all such samples have indicated compliance with permit limitations.

During the course of the existing permit, the Permittee remained in compliance with metals limitations with the exception of intermittent violations of the zinc standard. Violations of zinc standards occurred in April and December 1995; October, November, December 1997; and February and March 1998. The 1997/1998 violations were apparently due to a malfunction in the sandfilter (head pressure pipe and lift malfunction) and inadvertant introduction of soaps with chelating properties into the clarifier.

WASTEWATER CHARACTERIZATION

The concentration of pollutants in the discharge was reported in the permit application and in discharge monitoring reports. The wastewater discharge has been characterized for the following parameters based on discharge monitoring reports for the period January 1997 through June 1998:

Parameter	Average of Daily Maximums (mg/L)	Minimum of Daily Maximums (mg/L)	Maximum of Daily Maximums (mg/L)
Chromium	0.98	0.24	2.7
Copper	0.18	0.025	0.44
Nickel	0.22	0.02	1.4
Zinc	2.28	0.07	16.0

SEPA COMPLIANCE

The proposed permit renewal covers a pre-existing site and wastewater pretreatment system. Therefore, submittal and evaluation of SEPA checklists are not required.

PROPOSED PERMIT LIMITATIONS

State regulations require that limitations set forth in a waste discharge permit must be based on the technology available to treat the pollutants (technology-based) or be based on the effects of the pollutants to the POTW (local limits). Wastewater must be treated using all known, available, and reasonable treatment (AKART) and not interfere with the operation of the POTW. The Department considers the 40 CFR Part 413 categorical limitations to be consistent with AKART.

The more stringent of the local limits-based or technology-based limits are applied to each of the parameters of concern. Each of these types of limits is described in more detail below.

All waste discharge permits issued by the Department must specify conditions requiring available and reasonable methods of prevention, control, and treatment of discharges to waters of the state (WAC 173-216-110). Existing federal categorical limitations for this facility are found under 40 CFR Part 413.14 (Electroplating of Common Metals), 413.54 (Coatings Facilities), and 413.70 (Electroless Plating).

In order to protect **Olympus Terrace Sewer District** from pass-through, interference, concentrations of toxic chemicals that would impair beneficial or designated uses of sludge, or potentially hazardous exposure levels, effluent limitations for certain parameters are necessary. These limitations are based on local limits developed by the Department for Olympus Terrace Sewer District, and appear in the table below. A local limits calculation was run for the categorically regulated metals, taking into account conditions specific to that plant. In all cases, except that of nickel, the categorical limitations appearing in 40 CFR Part 433.7 (Pretreatment Standards for new Sources) were more stringent than the calculated local limitations. The limitations appearing in bold typeface below indicate the limitation appearing in the permit.

The limitations in the proposed permit renewal are based on the most stringent of local limits calculated for Olympus Terrace Sewer District and the categorical limitations found in 40 CFR 413 (Pretreatment Standards for New Sources). Olympus Terrace Sewer District requested that the maximum pH limitation be no greater than 10.0. A careful review of 40 CFR 413.14 and 413.54 indicated that lowering the minimum pH to 6.0 from 7.5 would be consistent with federal categorical regulations. The Department consulted with Olympus Terrace Sewer District regarding this change and obtained their consent.

Federal and Site-Specific Bases for Limitations			
Pollutant Parameter	Daily Maximum 40CFR413.14,54 (mg/L, exc. for pH)	Monthly Avg. 40CFR413.14,54 (mg/L)	Calculated Local Limit (mg/L)
cadmium	1.2	0.5	0.14
chromium	7.0	2.5	3.6
copper	4.5	1.8	4.4
cyanide	1.9	0.55	1.8
lead	0.6	0.4	0.91
nickel	4.1	1.8	2.6
zinc	4.2	1.8	8.34
total metals	10.5	5.0	N/A
TTO	2.13	N/A	N/A

MONITORING REQUIREMENTS

Monitoring, recording, and reporting are specified to verify that the treatment process is functioning correctly, and that effluent limitations are being achieved (WAC 173-216-110).

The monitoring schedule is detailed in the proposed permit under Condition S1. Specified monitoring frequencies take into account the quantity and variability of the discharge, the treatment method, past compliance, significance of pollutants, and cost of monitoring.

OTHER PERMIT CONDITIONS

REPORTING AND RECORDKEEPING

The conditions of S3 are based on the authority to specify any appropriate reporting and recordkeeping requirements to prevent and control waste discharges [WAC 273-216-110 and 40 CFR 403.12 (e), (g), and (h)].

OPERATIONS AND MAINTENANCE

The proposed permit contains condition S.5. as authorized under Chapter 173-240-150 WAC and Chapter 173-216-110 WAC. It is included to ensure proper operation and regular maintenance of equipment, and to ensure that adequate safeguards are taken so that constructed facilities are used to their optimum potential in terms of pollutant capture and treatment.

PROHIBITED DISCHARGES

Certain pollutants are prohibited from being discharged to the POTW. These include substances which cause pass-through or interference, pollutants which may cause damage to the POTW or harm to the POTW workers (Chapter 173-216 WAC) and the discharge of designated dangerous wastes not authorized by this permit (Chapter 173-303 WAC).

DILUTION PROHIBITED

The Permittee is prohibited from diluting its effluent as a partial or complete substitute for adequate treatment to achieve compliance with permit limitations.

SOLID WASTE PLAN

The Department has determined that the Permittee has a potential to cause pollution of the waters of the state from leachate of solid waste.

This proposed permit requires, under the authority of RCW 90.48.080, that the Permittee maintain an adequate solid waste plan, review it periodically, and update it as necessary.

SPILL PLAN

The Department has determined that the Permittee stores a quantity of chemicals that have the potential to cause water pollution if accidentally released. The Department has the authority to require the Permittee to develop best management plans to prevent this accidental release under section 402(a)(1) of the Federal Water Pollution Control Act (FWPCA) and RCW 90.48.080.

The Permittee has developed a plan for preventing the accidental release of pollutants to state waters and for minimizing damages if such a spill occurs. The proposed permit requires the Permittee to periodically review and update this plan as may be necessary to prevent accidental releases to the waters of the state or the sanitary sewer. The proposed permit requires that the Permittee submit an update to the existing spill plan no later than March 15, 2000.

SLUG DISCHARGE CONTROL PLAN

The Department has determined that the Permittee has the potential for a batch discharge or a spill that could adversely effect the POTW; therefore, a slug discharge control plan is required [40 CFR 403.8 (f)]. The proposed permit contains the requirement that the Permittee submit an update to the slug plan to the Department no later than March 15, 2000.

GENERAL CONDITIONS

General Conditions are based directly on state laws and regulations and have been standardized for all industrial waste discharge to POTW permits issued by the Department.

Condition G1 requires responsible officials or their designated representatives to sign submittals to the Department. Condition G2 requires the Permittee to allow the Department to access the treatment system, production facility, and records related to the permit. Condition G3 specifies conditions for modifying, suspending or terminating the permit. Condition G4 requires the Permittee to apply to the Department prior to increasing or varying the discharge from the levels

stated in the permit application. Condition G5 requires the Permittee to construct, modify, and operate the permitted facility in accordance with approved engineering documents. Condition G6 prohibits the Permittee from using the permit as a basis for violating any laws, statutes or regulations. Conditions G7 and G8 relate to permit renewal and transfer. Condition G9 requires the Permittee to control production or wastewater discharge in order to maintain compliance with the permit. Condition G10 prohibits the reintroduction of removed pollutants into the effluent stream for discharge. Condition G11 requires the payment of permit fees. Condition G12 describes the penalties for violating permit conditions.

PUBLIC NOTIFICATION OF NONCOMPLIANCE

A list of all industrial users which were in significant noncompliance with Pretreatment Standards or Requirements during any of the previous four quarters may be annually published by the Department in a local newspaper. Accordingly, the Permittee is apprised that noncompliance with this permit may result in publication of the noncompliance.

RECOMMENDATION FOR PERMIT ISSUANCE

This proposed permit meets all statutory requirements for authorizing a wastewater discharge, including those limitations and conditions believed necessary to control toxics. The Department proposes that the permit be issued for such a period as to expire in state fiscal year 2004 (July 1, 2003 through June 30, 2004).